

# **:: Patents Index (CTPI) in English**

Boolean Search | Patent Number Search | Field search

## **M262927 -- Patent Information**

Patent Number	<b>M 2 6 2 9 2 7</b>		
Title	<b>A radio broadcasting and charging appliance on a music playing mainframe for various music of MP3</b>		
Patent type	U		
Date of Grant	2005/4/21		
Application Number	093203493		
Filing Date	2004/3/9		
IPC	H04B7/00 & H04B1/034		
Inventor	<b>LIN, CHUNG-HUNG(TW)</b>		
Applicant	<b>Name</b>	<b>Country</b>	<b>Individual/Company</b>
	JOW TONG TECHNOLOGY CO., LTD.	TW	Company
Abstract	<p>The present invention relates to a radio broadcasting and charging appliance on a music playing mainframe for various music of MP3, which consists essentially with a foundation, a fitted stand, and a radio transmitter. In particular, a fitted stand and a radio transmitter provided for a MP3 music playing mainframe are assembled on the foundation in which a power source for vehicles can be inserted for the MP3 music playing mainframe and radio transmitter. Still, the radio transmitter can transmit the music signals arisen by MP3 music playing mainframe according to the set frequency and consumers can adjust the radio to the same frequency channel such that they can receive the signals thereof and playing music.</p>		

BEST AVAILABLE COPY

**A Radio Broadcasting and Charging Appliance on a Music Playing  
Mainframe for Various Music of MP3**

[FIELD OF THE INVENTION]

5 The present invention relates to a radio broadcasting and  
charging appliance on a music playing mainframe for various  
music of MP3, and more particularly, a "radio broadcasting  
and charging appliance on a music playing mainframe for  
various music of MP3" with which a MP3 music playing mainframe  
10 can be assembled on a foundation by choosing a fitted stand  
that is matched without respect to the appearance,  
specification and size thereof, and a radio transmitter can  
be further assembled on the foundation so as to transmit the  
music signals outputted from the MP3 music playing mainframe  
15 according to the set frequency while consumers can receive  
the signals to play music by an FM receiver.

[BACKGROUND TO THE INVENTION]

A MP3 music playing mainframe can generally be referred to  
20 a dedicated MP3 player, or a personal digital assistant (PDA)  
capable of storing and processing MP3 music data, and so on.

The aforementioned MP3 player and PDA can process music data  
stored in a MP3 format and play the music. However, the music  
25 played through a MP3 player is usually listened to by way of

using a headphone, and there are still many consumers hard to get used to it.

Therefore, there was a patent application of US 6,591,085 B1  
5 of "FM transmitter and power supply/charging assembly for MP3  
player" published on July 8, 2003, in which a MP3 player is  
docked on the body of an FM transmitter and power  
supply/charging assembly so as to process music signals  
outputted from the MP3 player and transmit at a frequency,  
10 and consumers can receive said signals by using an FM receiver  
to play the music. Thus, besides using headphones, the MP3  
player can play music with an FM receiver.

However, the docking unit on the body of the aforementioned  
15 US patent application can only mount a single size and  
specification of MP3 player, and can not universally mount  
various sizes and specifications of MP3 player.

[SUMMARY OF THE INVENTION]

20 For the above-mentioned reasons, the present invention  
intends to provide a radio broadcasting and charging appliance  
on a music playing mainframe for various music of MP3, capable  
of being assembled with various sizes and specifications of  
MP3 music playing mainframe, and transmitting the music  
25 outputted from the MP3 music playing mainframe by way of radio

frequency modulation with a radio transmitter so that consumers can receive the signals by using an FM receiver to play the music.

- 5 The present invention relates to a radio broadcasting and charging appliance on a music playing mainframe for various music of MP3, which consists essentially with a foundation, a fitted stand, and a radio transmitter. In particular, a fitted stand and a radio transmitter provided for a MP3 music
- 10 playing mainframe are assembled on the foundation in which a power source for vehicles can be inserted for the MP3 music playing mainframe and radio transmitter. Still, the radio transmitter can transmit the music signals arisen by MP3 music playing mainframe according to the set frequency and consumers
- 15 can adjust the radio to the same frequency channel such that they can receive the signals thereof and play music.

[BRIEF DESCRIPTION OF THE DRAWINGS]

- Fig. 1 is a perspective view of the present invention.
- 20 Fig. 2 is a sectional view of the present invention.
- Fig. 3 is a top view of the present invention.
- Fig. 4 is a schematic diagram showing the radio transmitter is mounted on the foundation according to the present invention.
- 25 Fig. 5 is a perspective view of another structural embodiment

of the present invention.

Fig. 6 is a top view of another structural embodiment of the present invention.

5 [DESCRIPTION OF PREFERRED EMBODIMENTS]

First, referring to Figs. 1~4, a radio broadcasting and charging appliance on a music playing mainframe for various music of MP3 of the present invention consists of a foundation (1), a fitted stand (2), and a radio transmitter (3).

10

The foundation (1) has an upper receiving portion (11) and a lower receiving portion (12) formed on its front side. The upper receiving portion (11) has a recession (13) provided on one side and a connector (14) assembled thereon. The lower  
15 receiving portion (12) has a power plug (15) and a music plug (16) assembled thereon. The foundation (1) has a vehicle power plug (17) assembled on its rear side for obtaining a power supply from a vehicle power source, which further supplies the power to the connector (14) and the power plug  
20 (15) via an internal circuit.

The fitted stand (2) has a fastener (21) formed on its front side for holding a MP3 music playing mainframe (4) such as, for example, a dedicated MP3 player, or a personal digital  
25 assistant (PDA) capable of storing and processing MP3 music

data. The fastener (21) has a lodging board (22) assembled at its rear side for lodging into the recession (13). The fastener (21) can be placed on the upper receiving portion (11) so that a socket (41) of the MP3 music playing mainframe (4) is connected with the connector (14) and the MP3 music playing mainframe (4) can obtain a power supply and transmit music signals through the connector (14).

The radio transmitter (3), inside which there is a digital FM transmitting circuit, can be mounted into the lower receiving portion (12) with the power socket (31) and the music socket (32) connected with the power plug (15) and the music plug (16), respectively, so as to obtain power supplies and music signals. Further, after receiving the music signals, the radio transmitter (3) transmits the music signals at a set frequency with the internal circuit so that consumers can receive the signals by using an FM receiver to play the corresponding music. Further, the radio transmitter (3) is provided with operation keys (33) and a display (34) for setting and displaying operation modes, operational functions, transmitting frequencies, etc.

Referring to Figs. 1~3, when in use, the MP3 music playing mainframe (4) is mounted into the fastener (21) of the fitted stand (2), and then the lodging board (22) of the fitted stand

(2) is lodged into the recession (13) of the foundation (1), so that the fastener (21) and the MP3 music playing mainframe (4) are fixed in the upper receiving portion (11) with the socket (41) of the MP3 music playing mainframe (4) connected with the connector (14). Subsequently, the radio transmitter (3) is mounted into the lower receiving portion (12) with the power socket (31) and the music socket (32) connected with the power plug (15) and the music plug (16), respectively. Further, the vehicle power plug (17) is connected to a vehicle power source to obtain a power supply, and, with an internal circuit, supplies power to the MP3 music playing mainframe (4) and the radio transmitter (3) through the connector (14) and the power plug (15). Whereby the MP3 music playing main frame (4) can be used to output music signals which are transmitted to the radio transmitter (3) through the connector (14), and then the radio transmitter (3) transmits the music signals at a frequency set by the internal circuit. Consumers can adjust a general FM receiver to the same frequency channel so as to receive the signals and broadcast the music with the speakers in the vehicle.

Referring to Figs. 1~3, the fastener (21) of the fitted stand (2) for mounting the MP3 music playing mainframe (4) can be a hard fastener which slightly forms a shape of C in its section, and the lodging board (22) is provided with a pivotal rod (23)

and a spring (24) for resiliently and pivotally connecting to the rear side of the fastener (21). Thus, after the MP3 music playing mainframe (4) is mounted in the fastener (21), the fitted stand (2) can be assembled with and fixed on the foundation (1) by the insertion of the lodging board (22) into the recession (13), or clasped on a waist band or a handbag by the lodging board (22) with the action of the spring (24) for carrying the MP3 music playing mainframe (4) on one's person.

10

Referring to Figs. 5 and 6, another structural embodiment of the present invention is showed, in which the fastener (21) of the fitted stand (2) is a soft bag-like object such as a leather case or a plastic case, and the lodging board (22) on its rear side can be formed by directly fixing or by resiliently and pivotally connecting as shown in Figs 1 and 3.

From the above description, it can be understood that the present invention indeed has the following advantages:

1. By assembling the MP3 music playing mainframe (4) and the radio transmitter (3) onto the foundation (1), music signals outputted from the MP3 music playing mainframe (4) can be transmitted via the radio transmitter (3) at a set



frequency so that consumers can receive the signals by using an FM receiver to broadcast the music through the speakers in a vehicle.

- 5    2. There are many MP3 music playing mainframes (4) with various sizes and specifications commercially available. The present invention provides different specifications of the fitted stand (2) for consumers' choosing according to their own MP3 music playing mainframe (4). Without respect to  
10    the specifications of the fitted stand (2), only the specifications of the fastener (21) thereof are different, and the specifications of the lodging board (22) thereof are the same. Therefore, the fitted stand (2) can still be used with the same foundation (1) and radio transmitter  
15    (3). Consequently, the present invention can be used with various specifications of MP3 music playing mainframe (4).
3. The foundation (1) can connect to a vehicle power source via the vehicle power plug (17) on its rear side, and supply  
20    power to the MP3 music playing mainframe (4) so that the MP3 music playing mainframe (4) can operate to play music by this power supply.
4. When no music is to be played, the foundation (1) can only  
25    assemble the MP3 music playing mainframe (4) thereon for

charging the same without assembling the radio transmitter  
(3) .

5 5. The foundation (1) can connect to a vehicle power source  
via the vehicle power plug (17) on its rear side, and supply  
power to the radio transmitter (3) so that the radio  
transmitter (3) can operate by this power supply.

10 In summary, the embodiments of the present invention can  
indeed achieve the effects as expected, and the concrete  
structures as disclosed above have not been seen in the  
products of the same category and open to the public before  
filing an application. Therefore, the present invention  
completely meets the provisions and requirements of the Patent  
15 Act, and a utility model patent application is filed in this  
regard according to the law. It is respectfully solicited  
that your Office after examination will grant the patent.

[DESCRIPTION OF REFERENCE NUMERALS]

20 1 foundation  
11 upper receiving portion  
12 lower receiving portion  
13 recession  
14 connector  
25 15 power plug

16 music plug  
17 vehicle power plug  
2 fitted stand  
21 fastener  
5 22 lodging board  
23 pivotal rod  
24 spring  
3 radio transmitter  
31 power socket  
10 32 music socket  
33 operation keys  
34 display  
4 MP3 music playing mainframe  
41 socket

15

What is claimed is:

1. A radio broadcasting and charging appliance on a music playing mainframe for various music of MP3, comprising:

5       a foundation, which has an upper receiving portion and a lower receiving portion formed on its front side; the upper receiving portion having a recession provided on one side and a connector assembled thereon; the lower receiving portion having a power plug and a music plug assembled thereon; the  
10 foundation having a vehicle power plug assembled on its rear side for obtaining a power supply from a vehicle power source, which further supplies the power to the connector and the power plug via an internal circuit,

      a fitted stand, which has a fastener formed on its front  
15 side for holding a MP3 music playing mainframe; the fastener having a lodging board assembled at its rear side for lodging into the recession; the fastener capable of being placed on the upper receiving portion so that a socket of the MP3 music playing mainframe is connected with the connector and the MP3  
20 music playing mainframe can obtain a power supply and transmit music signals through the connector,

      a radio transmitter, which can be mounted into the lower receiving portion with the power socket and the music socket connected with the power plug and the music plug, respectively,  
25 so as to obtain power supplies and music signals; after

receiving the music signals, the radio transmitter (3) transmitting the music signals at a set frequency with the internal circuit,

when in use, the fitted stand with the MP3 music playing  
5 mainframe assembled and the radio transmitter being mounted onto the foundation; by using the MP3 music playing mainframe outputting music signals, and the radio transmitter transmitting the music signals at a set frequency, said signals being capable of being received by an FM receiver to  
10 play the corresponding music.

2. The radio broadcasting and charging appliance on a music playing mainframe for various music of MP3 according to claim 1, wherein the radio transmitter is provided with  
15 operation keys and a display for setting and displaying operation modes, operational functions, and transmitting frequencies.

3. The radio broadcasting and charging appliance on a  
20 music playing mainframe for various music of MP3 according to claim 1, wherein the fastener of the fitted stand is a hard fastener which slightly forms a shape of C in its section.

4. The radio broadcasting and charging appliance on a  
25 music playing mainframe for various music of MP3 according

to claim 1, wherein the fastener of the fitted stand is a soft bag-like object.

5        5. The radio broadcasting and charging appliance on a music playing mainframe for various music of MP3 according to claim 1, wherein the lodging board of the fitted stand is resiliently and pivotally connected to the rear side of the fastener by the assembling of a pivotal rod and a spring.

10       6. The radio broadcasting and charging appliance on a music playing mainframe for various music of MP3 according to claim 1, wherein the MP3 music playing mainframe is a dedicated MP3 player.

15       7. The radio broadcasting and charging appliance on a music playing mainframe for various music of MP3 according to claim 1, wherein the MP3 music playing mainframe is a personal digital assistant (PDA) capable of storing and processing MP3 music data.

20

**Abstract**

The present invention relates to a radio broadcasting and charging appliance on a music playing mainframe for various music of MP3, which consists essentially with a foundation, 5 a fitted stand, and a radio transmitter. In particular, a fitted stand and a radio transmitter provided for a MP3 music playing mainframe are assembled on the foundation in which a power source for vehicles can be inserted for the MP3 music 10 playing mainframe and radio transmitter. Still, the radio transmitter can transmit the music signals arisen by MP3 music playing mainframe according to the set frequency and consumers can adjust the radio to the same frequency channel such that they can receive the signals thereof and play music.

15

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**